

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- ① BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

**THIS PAGE BLANK (USPTO)**

**~~BEST AVAILABLE COPY~~**

THOMSON

DELPHION

RESEARCH

PRODUCTS

INSIDE DELPHION

Fly Account | Products

Search: Quick/Number Boolean Advanced

## The Delphion Integrated View

Get Now: ☒ PDF | [More choices...](#)Tools: Add to Work File: [Create new Wor](#)View: [INPADOC](#) | Jump to: [Top](#) ☐ Go to: [Derwent...](#)☐ [Ema](#)

**Title:** JP10289708A2: NONAQUEOUS ELECTROLYTE SECONDARY BATT  
MANUFACTURE OF ELECTRODE PLATES OF THE SAME

**Country:** JP Japan

**Kind:** A

**Inventor:** MURAI TETSUYA;  
TSUKAMOTO HISASHI;

**Assignee:** JAPAN STORAGE BATTERY CO LTD  
[News, Profiles, Stocks and More about this company](#)

**Published / Filed:** 1998-10-27 / 1997-04-11

**Application** JP1997000094026

**Number:**

**IPC Code:** H01M 4/02; H01M 4/04; H01M 10/40;

**Priority Number:** 1997-04-11 JP1997000094026

**Abstract:**

**PROBLEM TO BE SOLVED:** To provide a nonaqueous electrolyte secondary battery which can spread lithium on an entire electrode body uniformly as much as possible and enables large quantification, and a manufacturing method of its electrode plates.

**SOLUTION:** A lithium foil laminated film 50 which holds a metallic lithium foil 52 on a base film 51 is piled on a negative electrode plate 20 and pressurized with passing through between a pair of transcription rolls 53. After pressurization, the base film 51 is peeled off and the negative electrode plate 20, wherein very thin metallic lithium foil 52 is transcribed on the surface of electrode mix 23, is produced. The negative electrode plate 20 is wound together with a positive electrode plate, placing a separator between them to form an electrode body.

COPYRIGHT: (C)1998,JPO

**Family:** None

**Other Abstract** CHEMABS 129(25)333313V CAN129(25)333313V DERABS C99-020193  
**Info:** DERC99-020193



[Nominate](#)

[this for the Gallery...](#)

**THOMSON**  
DELPHION

RESEARCH

PRODUCTS

INSIDE DELPHION

My Account | Products

Search: Quick/Number Boolean Advanced

## The Delphion Integrated View

Get Now: ☒ PDF | [More choices...](#)Tools: Add to Work File: View: [INPADOC](#) | Jump to: [Top](#)☐ Go to: [Derwent...](#)☐ [Ema](#)

**Title:** JP10289708A2: NONAQUEOUS ELECTROLYTE SECONDARY BATT  
MANUFACTURE OF ELECTRODE PLATES OF THE SAME

**Country:** JP Japan

**Kind:** A

**Inventor:** MURAI TETSUYA;  
TSUKAMOTO HISASHI;

**Assignee:** JAPAN STORAGE BATTERY CO LTD  
[News, Profiles, Stocks and More about this company](#)

**Published / Filed:** 1998-10-27 / 1997-04-11

**Application** JP1997000094026

**Number:**

**IPC Code:** [H01M 4/02](#); [H01M 4/04](#); [H01M 10/40](#);

**Priority Number:** 1997-04-11 JP1997000094026

**Abstract:**

... PROBLEM TO BE SOLVED: To provide a nonaqueous electrolyte secondary battery which can spread lithium on an entire electrode body uniformly as much as possible and enables large quantification, and a manufacturing method of its electrode plates.

... SOLUTION: A lithium foil laminated film 50 which holds a metallic lithium foil 52 on a base film 51 is piled on a negative electrode plate 20 and pressurized with passing through between a pair of transcription rolls 53. After pressurization, the base film 51 is peeled off and the negative electrode plate 20, wherein very thin metallic lithium foil 52 is transcribed on the surface of electrode mix 23, is produced. The negative electrode plate 20 is wound together with a positive electrode plate, placing a separator between them to form an electrode body.

... COPYRIGHT: (C)1998,JPO

**Family:** None

**Other Abstract** CHEMABS 129(25)333313V CAN129(25)333313V DERABS C99-020193  
**Info:** DERC99-020193



[Nominate](#)

[this for the Gallery...](#)



(19)

(11) Publication number: **10**

Generated Document.

**PATENT ABSTRACTS OF JAPAN**(21) Application number: **09094026**(51) Intl. Cl.: **H01M 4/02 H01M 4/04 H01M**(22) Application date: **11.04.97**

(30) Priority:	(71) Applicant: <b>JAPAN STORAGE BAT LTD</b>
(43) Date of application publication: <b>27.10.98</b>	(72) Inventor: <b>MURAI TETSUYA TSUKAMOTO HISASHI</b>
(84) Designated contracting states:	(74) Representative:

**(54) NONAQUEOUS  
ELECTROLYTE  
SECONDARY BATTERY  
AND MANUFACTURE OF  
ELECTRODE PLATES OF  
THE SAME**

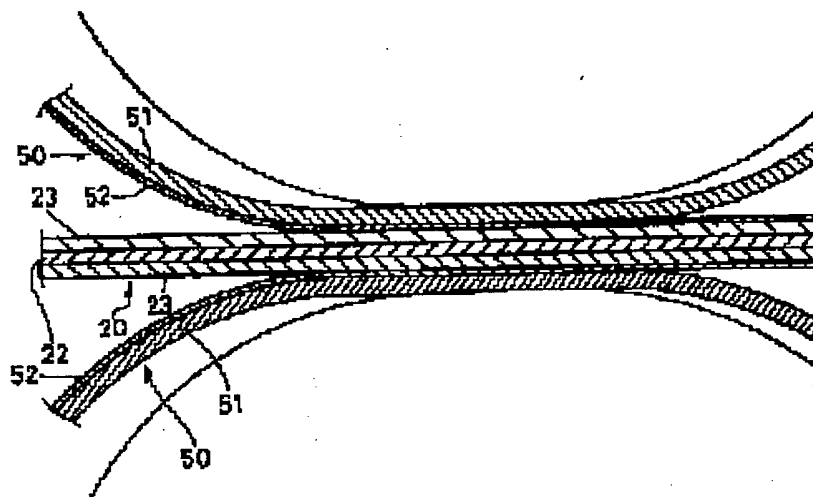
(57) Abstract:

**PROBLEM TO BE SOLVED:** To provide a nonaqueous electrolyte secondary battery which can spread lithium on an entire electrode body uniformly as much as possible and enables large quantification, and a manufacturing method of its electrode plates.

**SOLUTION:** A lithium foil laminated film 50 which holds a metallic lithium foil 52 on a base film 51 is piled on a negative electrode plate 20 and pressurized with passing through between a pair of transcription rolls 53. After pressurization, the base film 51 is peeled off and the negative electrode plate 20, wherein very thin metallic lithium foil 52 is transcribed on the surface of electrode mix 23, is

produced. The negative electrode plate 20 is wound together with a positive electrode plate, placing a separator between them to form an electrode body.

COPYRIGHT: (C)1998,JPO





(19)

(11) Publication number: **10**

Generated Document.

**PATENT ABSTRACTS OF JAPAN**(21) Application number: **09094026**(51) Intl. Cl.: **H01M 4/02 H01M 4/04 H01M**(22) Application date: **11.04.97**

(30) Priority:	(71) Applicant: <b>JAPAN STORAGE BAT LTD</b>
(43) Date of application publication: <b>27.10.98</b>	(72) Inventor: <b>MURAI TETSUYA TSUKAMOTO HISASHI</b>
(84) Designated contracting states:	(74) Representative:

**(54) NONAQUEOUS  
ELECTROLYTE  
SECONDARY BATTERY  
AND MANUFACTURE OF  
ELECTRODE PLATES OF  
THE SAME**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a nonaqueous electrolyte secondary battery which can spread lithium on an entire electrode body uniformly as much as possible and enables large quantification, and a manufacturing method of its electrode plates.

SOLUTION: A lithium foil laminated film 50 which holds a metallic lithium foil 52 on a base film 51 is piled on a negative electrode plate 20 and pressurized with passing through between a pair of transcription rolls 53. After pressurization, the base film 51 is peeled off and the negative electrode plate 20, wherein very thin metallic lithium foil 52 is transcribed on the surface of electrode mix 23, is

produced. The negative electrode plate 20 is wound together with a positive electrode plate, placing a separator between them to form an electrode body.

COPYRIGHT: (C)1998,JPO.

